In the Claims

22.

23.

Cancel

Cancel

Please amend the Application as follows:

Cancel 1. 2. Cancel Cancel 3. 4. Cancel 5. Cancel 6. Cancel 7. Cancel 8. Cancel 9. Cancel 10. Cancel 11. Cancel 12. Cancel 13. Cancel Cancel 14. 15. Cancel 16. Cancel 17. Cancel 18. Cancel 19. Cancel 20. Cancel 21. Cancel 24. (Currently Amended) A compound of the formula III

in which

A is a C₁-C₃ chain wherein each carbon atom is optionally substituted with one or two members selected from the group consisting of C₁-C₄-alkyl, OH,

O-C₁-C₄-alkyl, CO₂H, CO₂-C₁-C₄-alkyl and phenyl or one C atom may also carry an =O group;

X⁴ X is selected from the group consisting of S, O and NH; and

is selected from the group consisting of hydrogen, chlorine, fluorine, bromine, iodine, branched and unbranched C₁-C₆-alkyl, OH, nitro, CF₃, CN, NR¹¹R¹², NH-CO-R¹³, and O-C₁-C₄-alkyl, where R¹¹ and R¹² are, independently of one another, hydrogen or C₁-C₄-alkyl, and R¹³ is hydrogen, C₁-C₄-alkyl, C₁-C₄-alkyl-phenyl or phenyl;

excluding the compounds

9-amino-3-methyl-1,2,3,4-tetrahydro-5H1,4-benzodiazepin-5-one,

9-amino-3-methyl-3,4-dihydro-1H-1,4-benzodiazepine-2,5-dione,

6,8-diamino-2,4(1H,3H)-quinazolinedione,

8-amino-2,4-(1H,3H)-quinazolinedione,

and the salts thereof.

25. (Currently Amended) A process for preparing compounds of claim 24 wherein 2-halo-3-nitrobenzoic esters are reacted with a suitable diamine in a polar

solvent in the presence of a base, and then the nitro group is hydrogenated with hydrogen in the presence of a suitable catalyst.

- 26. Cancel
- 27. (New) A compound of the formula I

$$R^1$$
 R^1
 R^1

in which

A is a C₁-C₃ chain where each carbon atom is optionally substituted with one or two substituents selected from the group consisting of C₁-C₄-alkyl, OH, O-C₁-C₄-alkyl, COOH, COO-C₁-C₄-alkyl and phenyl or one C atom may also carry an =O group;

- X¹ is selected from the group consisting of S, O and NH;
- R¹ is selected from the group consisting of hydrogen, chlorine, fluorine, bromine, iodine, branched and unbranched C₁-C₆-alkyl, OH, nitro, CF₃, CN, NR¹¹R¹², NH-CO-R¹³ and O-C₁-C₄-alkyl, where R¹¹ and R¹² are, independently of one another, hydrogen or C₁-C₄-alkyl, and R¹³ is hydrogen, C₁-C₄-alkyl, C₁-C₄-alkyl-phenyl or phenyl;
- B is piperidine or piperazine, which is optionally substituted by one R⁴ or a maximum of two R⁵;
- R^4 is hydrogen or $-(D)_p-(E)_s-(F^1)_q-G^1-(F^2)_r-(G^2)-G^3$, where
- D is S, NR⁴³ or O
- E is selected from the group consisting of phenyl, C=O,
 -SO₂-, -SO₁NH-, -NHCO-, -CONH-, HNSO₂-, and -NHCOCH₂X⁴-;
- X^4 is S, O or NH;

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- F¹ is a straight-chain or branched saturated or unsaturated carbon chain of 1 to 8 C atoms;
- F^2 has, independently of F^1 , the same meaning as F^1 ;
- G¹ is a bond or an unsaturated, saturated or partially unsaturated mono-, bi- or tricyclic ring with a maximum of 15 carbon atoms, or an unsaturated, saturated or partially unsaturated mono-, bi- or tricyclic ring with a maximum of 14 carbon atoms and 0 to 5 nitrogen atoms, 0 to 2 oxygen atoms or 0 to 2 sulfur atoms, each of which is optionally substituted by maximum of 3 different or identical R⁵ radicals, and one or two carbon or sulfur atoms may also carry one or two =O groups;

 G^2 is $NR^{41}R^{42}$,

or a bond;

G³ is an unsaturated, saturated or partially unsaturated mono-, bi- or tricyclic ring with a maximum of 15 carbon atoms or an unsaturated, saturated or partially unsaturated mono-, bi- or tricyclic ring with a maximum of 14 carbon atoms and 0 to 5 nitrogen atoms, 0 to 2 oxygen atoms or 0 to 2 sulfur atoms each of which is optionally substituted by a maximum of 3 different or identical R⁵ radicals, and one or two carbon or sulfur atoms may also carry one or two =O groups, or hydrogen;

- p is 0 or 1;
- s is 0 or 1;
- q is 0 or 1;
- r is 0 or 1;

- R⁴¹ is selected from the group consisting of hydrogen, C₁-C₆-alkyl, where each carbon atom is optionally substituted with a maximum of two R⁶ radicals, phenyl which is optionally substituted with a maximum of two R⁶ radicals, and (CH₂)₁-K;
- R⁴² is selected from the group consisting of hydrogen, C₁-C₆-alkyl, CO-R⁸, CO₂-R⁸, SO₂NH₂, SO₂-R⁸, -(C=NH)-R⁸ and -(C=NH)-NHR⁸;
- R^{43} is hydrogen or C_1 - C_4 -alkyl;
- t is 1, 2, 3 or 4;
- K is selected from the group consisting of NR¹¹R¹², NR¹¹-C₁-C₄-alkyl-phenyl, pyrrolidine, piperidine 1,2,5,6-tetra-hydropyridine, morpholine, homopiperidine, piperazine which is optionally substituted by an C₁-C₆-alkyl radical, and homopiperazine which is optionally substituted by an C₁-C₆-alkyl radical;
- R⁵ is selected from the group consisting of hydrogen, chlorine, fluorine, bromine, iodine, OH, nitro, CF₃, CN, NR¹¹R¹², NH-CO-R¹³, C₁-C₄-alkyl-CO-NH-R¹³, COR⁸, C₀-C₄-alkyl-O-CO-R¹³, C₁-C₄-alkyl-phenyl, phenyl, CO₂-C₁-C₄-alkyl, and branched and unbranched C₁-C₆-alkyl, O-C₁-C₄-alkyl or S-C₁-C₄-alkyl wherein each C atom of the alkyl chains is optionally substituted with a maximum of two R⁶ radicals, and the alkyl chains are optionally unsaturated;
- R⁶ is selected from the group consisting of hydrogen, chlorine, fluorine, bromine, iodine, branched and unbranched C₁-C₆-alkyl, OH, nitro, CF₃, CN, NR¹¹R¹², NH-CO-R¹³ and O-C₁-C₄-alkyl;
- R⁷ is selected from the group consisting of hydrogen, C₁-C₆-alkyl, phenyl wherein the ring is optionally substituted by up to two R⁷¹ radicals, an amine NR¹¹R¹² or a cyclic saturated amine which has 3 to 7 members and is optionally substituted by a C₁-C₆ alkyl radical, and homopiperazine which is optionally substituted by a C₁-C₆ alkyl radical;
- where the radicals R¹¹, R¹² and R¹³ in K, R⁵, R⁶ and R⁷ may, independently of one another, assume the same meaning as for R¹;

- R⁷¹ is selected from the group consisting of OH, C₁-C₆-alkyl, O-C₁-C₄-alkyl, chlorine, bromine, iodine, fluorine, CF₃, nitro and NH₂;
- R⁸ is selected from the group consisting of C₁-C₆-alkyl, CF₃, phenyl and C₁-C₄-alkyl-phenyl wherein the phenyl ring is optionally substituted by up to two R⁸¹ radicals;
- R⁸¹ is selected from the group consisting of OH, C₁-C₆-alkyl, O-C₁-C₄-alkyl, chlorine, bromine, iodine, fluorine, CF₃, nitro and NH₂;
- R⁹ is selected from the group consisting of hydrogen, C₁-C₆-alkyl, C₁-C₄-alkyl-phenyl, CO₂-C₁-C₄-alkyl-phenyl, CO₂-C₁-C₄-alkyl, SO₂-phenyl, COR⁸ and phenyl wherein the phenyl rings are optionally substituted by up to two R⁹¹ radicals; and
- R⁹¹ is selected from the group consisting of OH, C₁-C₆-alkyl, O-C₁-C₄-alkyl, chlorine, bromine, iodine, fluorine, CF₃, nitro and NH₂

its tautomeric forms, possible enantiomeric and diastereomeric forms, and prodrugs thereof.

- 28. (New) A compound of the formula I as claimed in claim 27, where
 - A is a C_2 chain which is optionally substituted,
 - X^1 is O, and
 - R¹ is hydrogen.
- 29. (New) A compound of the formula I as claimed in claim 27, where
 - R^4 is hydrogen or $D_{0.1}$ - $F^1_{0.1}$ - G^2 - G^3 where G^3 is hydrogen,
 - D is O, and NR⁴³, where R⁴³ is hydrogen or C₁-C₃-alkyl and
 - F^1 is C_2 - C_4 -alkyl.
- 30. (New) A compound selected from the group consisting of 2-(6-nitro-1,3-benzodioxol-5 yl)-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one, 2-(2,3-dihydro-1,3-benzodioxin-6-yl)-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-

7(4H)-one, 2-(1,3-benzodioxol-5-yl)-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one, 2-(2,5-dimethoxytetrahydro-3-furanyl)-5,6-dihydroimidazo[4,5,1-jk][1,4]benzo-diazepin-7(4H)-one, 2-(2,3-diyhdro-1-benzofuran-5-yl)-5,6-dihydroimidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one, and 2-(6-chloro-1,3-benzodioxol-5-yl)-5,6-dihydro-imidazo[4,5,1-jk][1,4]benzodiazepin-7(4H)-one

its tautomeric forms, possible enantiomeric and diastereomeric forms, and prodrugs thereof.

- 31. (New) A pharmaceutical composition comprising one or more compounds as claimed in claim 27 in addition to conventional carriers and excipients.
- 32. (New) A method of treating patients having disorders characterized by elevated PARP comprising administering a therapeutically effective amount of a compound of claim 27 to the patient.
- 33. (New) The method of claim 32 wherein the disorders are neurodegenerative disorders or neuronal damage.
- 34. (New) The method of claim 32 wherein the disorders are neurodegenerative disorders or neuronal damage caused by ischemia, trauma or massive bleeding.
- 35. (New) The method of claim 32 wherein the disorders are stroke or craniocerebral trauma.
- 36. (New) The method of claim 32 wherein the disorders are Alzheimer's disease, Parkinson's disease or Huntington's disease.

- 37. (New) The method of claim 32 wherein the disorders are due to ischemias.
 - 38. (New) The method of claim 32 wherein the disorders are epilepsies.
- 39. (New) The method of claim 38 wherein the epilepsies are petit mal seizures, tonoclonic seizures, temporal lobe seizures or complex partial seizures.
- 40. (New) The method of claim 32 wherein the disorders result from damage to the kidneys after renal ischemia, damage caused by drug therapy or kidney transplants.
- 41. (New) The method of claim 32 wherein the disorders result from damage to the heart following cardiac ischemia.
- 42. (New) The method of claim 32 wherein the disorders result from microinfarcts.
- 43. (New) The method of claim 42 wherein the microinfarcts result from heart valve replacement, aneurysm resections or heart transplants.
- 44. (New) The method of claim 32 wherein the disorders result from revascularization of critically narrowed coronary arteries.
- 45. (New) The method of claim 32 wherein the disorders result from PTCA, bypass operations or critically narrowed peripheral arteries.
 - 46. (New) The method of claim 32 wherein the disorders result from

acute myocardial infarct or damage during and after medical or mechanical lysis thereof.

- 47. (New) The method of claim 32 wherein the disorders result from tumors and metastasis thereof.
- 48. (New) The method of claim 32 wherein the disorders result from sepsis or multiorgan failure.
- 49. (New) The method of claim 32 wherein the disorders result from septic shock or acute respiratory distress syndrome.
- 50. (New) The method of claim 32 wherein the disorders are immunological disorders.
- 51. (New) The method of claim 50 wherein the immunological disorders are inflammations or rheumatic disorders.
- 52. (New) The method of claim 50 wherein the immunological disorder is rheumatoid arthritis.
- 53. (New) The method of claim 32 wherein the disorder is disabetes mellitus.
- 54. (New) A method of preparing a compound of claim 27 comprising converting a compound of claim 24 to said compound of claim 27.